

for the advancement of which our Society was established, and which tend at the same time to the glory of the nation that protects them, and to the happiness of the whole civilized world."

These Addresses were unanimously adopted by the Society.

The following letter was read from G. G. Anson, Esq., addressed to the President, enclosing a specimen of a deposit with which nine acres of land near Exeter, belonging to Lord Radnor, had been covered after the subsidence of a flood, and which was sent by H.R.H. Prince Albert, F.R.S. :—

" *Buckingham Palace, June 8, 1840.*

" MY DEAR LORD,

" His Royal Highness Prince Albert has commanded me to forward to you the enclosed specimen, which has been sent up to His Royal Highness from Lord Radnor's place near Exeter, where nine acres of land were covered with this curious substance after a flood had subsided. His Royal Highness thinks it very probable that the subject may already have been brought before the Royal Society, but in case it should not have been, he sends the accompanying packet. It is said that a good deal of it has been applied to the purpose of making waistcoats for poor people.

" Believe me,

" My dear Lord,

" Yours very faithfully,

" G. G. ANSON.

" *The Marquis of Northampton, President of the Royal Society.*"

The following description of the specimen referred to in the letter, drawn up by John Lindley, Ph. D. F.R.S., was also read :

" Description of the Specimen referred to in the preceding letter." By John Lindley, Ph. D., F.R.S.

The plant which overran Lord Radnor's land is the *Conferva crispa* of Dillwyn, which is said to be the *Conferva fluviatilis* of Linnæus. The species inhabits fresh water, and multiplies with great rapidity, forming entangled strata. The green portion is the *Conferva* in its young state, the white portion is the plant old and bleached. The whole mass consists of articulated filaments, among which are fragments of grass-leaves.

The following papers were then read, or their titles announced :—

1. An Account of Experiments on the Reflecting Telescope. By the Right Hon. Lord Oxmantown, F.R.S.

This paper enters minutely into the details of the experiments, of the precautions requisite to ensure success, and of the manipulations ultimately adopted in forming a speculum three feet in diameter, subsequently applied to a telescope, mounted in a manner very similar to that of Sir John Herschel. The author states, as the results he arrived at, that specula can be made to act effectively, when cast of the finest speculum metal, in separate portions, and retained in

their positions by an alloy of zinc and copper, as easily wrought as common brass, and that they can be executed in this manner of any required size; that castings of the finest speculum metal can be executed of large dimensions, perfect, and not very liable to break; that machinery can be employed with the greatest advantage in grinding and polishing specula; that to obtain the finest polish, it is not necessary that the speculum should become warm, and that any temperature may be fixed upon, and preserved uniform during the whole process; and that large specula can be polished as accurately as small ones, and be supported so as to be secured from flexure.

2. On the theoretical explanation of an apparently new Polarity in Light. By G. B. Airy, Esq., M.A., F.R.S., Astronomer Royal.

The existence of a polarity in the rays of homogeneous light, having regard only to the sequence of colours in the spectrum, was inferred by Sir David Brewster from some experiments, of which he has given an account, contained in the Report of the seventh meeting of the British Association. The author states the results of his own observations of similar phenomena, and their theoretical explanation on the undulatory theory, together with the mathematical development of that explanation.

3. On the Ferrosesquicyanuret of Potassium. By Alfred Smee, Esq. Communicated by P. M. Roget, M.D., Sec. R.S.

The author examines, in this paper, the action of chlorine upon the ferrocyanate of potassa, and the conversion of the latter into ferrosesquicyanuret; and proposes methods for obtaining this latter salt uncontaminated with impurities, and free from the difficulties and inconvenience attendant on the present mode of preparation.

4. On the influence of Iodine in rendering several argentine compounds, spread on paper, sensitive to light; and on a new Method of producing, with greater distinctness, the Photogenic Image. By Mr. Robert Hunt. Communicated by Sir John Herschel, Bart., V.P.R.S.

This paper contains various details of the results of a great number of experiments made with a view of rendering paper capable of being employed instead of metallic plates, in Daguerre's photographic process. It is accompanied with 12 papers as specimens.

5. Hourly Observations of the Barometer and Thermometer at sea, on the 21st of March, 1840. By Major-General A. Lindsay, H.E.I.C.S. Communicated by Sir John F. W. Herschel, Bart., V.P.R.S.

These observations were made on board the ship Owen Glendower, on her voyage from Calcutta to London.

6. On the Constitution of Pigotite, and on the Mudesous and Mudesic Acids. By James F. W. Johnston, Esq., M.A., F.R.S.

In this paper the author describes a substance, found by himself